PAT-NO:

JP02004182595A

DOCUMENT-IDENTIFIER: JP 2004182595 A

TITLE:

ROD-IN TUBE OPTICAL FIBER PREFORM AND METHOD

OF DRAWING

THE SAME

PUBN-DATE:

July 2, 2004

INVENTOR-INFORMATION:

NAME COUNTRY FLETCHER, JOSEPH P III N/A MILLER, THOMAS J N/A RENNELL, JOHN AMBROSE JR N/ASMITH, DON HARTMAN N/A BAUER, PETER N/A CIBIS, NORBERT N/ASATTMANN, RALPH N/A SOWA, RENE N/A

ASSIGNEE-INFORMATION:

COUNTRY NAME FITEL USA CORP N/A

APPL-NO: JP2003405301

APPL-DATE: December 4, 2003

PRIORITY-DATA: 2002309852 ( December 4, 2002)

INT-CL (IPC): C03B037/012, C03B037/027

## ABSTRACT:

PROBLEM TO BE SOLVED: To reduce the manufacturing cost and to increase the yield obtained from a preform by assembling a RIT preform in a relatively simple manner and eliminating the prior heating step.

SOLUTION: An optical fiber preform 10 includes a core rod 18 and an overclad tube 20 having an open, distal end dimensioned to enter the mouth 12

of a

vertical fiber draw furnace 14. A plug 22 is fixed in the region of the distal

end of the tube 20, and the core rod 18 is disposed axially inside the overclad

tube 20 so that a distal end of the rod 18 is restrained from downward movement

by the plug 22 as the tube 20 enters and descends into a hot zone of the draw  $\dot{}$ 

furnace 14. The distal end 16 of the tube 20 is heated in the furnace hot zone

until the tube 18 and the plug 22 soften and fuse to each other. The tube then

collapses onto the core rod to produce a drop from which an optical fiber

having desired properties may be drawn.

COPYRIGHT: (C) 2004, JPO&NCIPI